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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants: Parasnis et al. Attorney Docket No: MICR0173

Serial No: 09/533,049 Group Art Unit: 2143

Filed: March 22, 2000 Examiner: Boutah, Alina A.

Title: SYSTEM AND METHOD FOR RECORDING A PRESENTATION FOR ON-

DEMAND VIEWING OVER A COMPUTER NETWORK

REPLY BRIEF

Bellevue, Washington 98004 October 27, 2006

TO THE DIRECTOR OF THE PATENT AND TRADEMARK OFFICE:

This is a Reply Brief in an Appeal of a Final Rejection of the above-identified patent application and is responsive to the Examiner's Answer dated September 8, 2006 and October 23, 2006. The Examiner's Answer was responsive to a Substitute Appeal Brief dated June 12, 2006 that addressed objections raised in a Notification of Non-Compliant Appeal Brief mailed on May 31, 2006. The Board is requested to consider the following remarks in reaching a decision in this Appeal.

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STATUS OF THE CLAIMS

	Clai	ms 1	-4 and ϵ	5-29 r	emain	pending	in the	e applica	tion	on ap	peal,	Claim	5 h	aving	been
cancel	ed.	No	claims	have	been	allowed.	Cla	aims 1-4	and	6-29	have	been	reje	ected	under
35 U.S	S.C. §	103.	Appe	llants	have	appealed	that :	rejection	and	hereb	y rep	ly to	the	Exam	iner's
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GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A determination as to whether Claims 1-4 and 6-29 are patentable under 35 U.S.C. § 103(a) over "Mastering Microsoft Internet Information Server 4," by Peter Dyson in view of Gomez et al. (U.S. Patent No. 6,697,569) in view of Klemets et al. (U.S. Published Application No. 2001/0013068).

ARGUMENT

The Combination of Dyson, Klemets, and Gomez Fails to Teach or Suggest Automatic Time Indexing When Live Content is Captured or Data Stream is Produced.

The combination of Dyson, Klemets and Gomez do not teach or suggest automatic time indexing when live content is captured or when the data stream is produced. With respect to the Gomez reference, appellants respectfully disagree with the Examiner's Response to Argument statements on page 22 of the Examiner's Answer, that Gomez discloses that automatic time indexing is performed when live content is captured or the data stream is produced.

In the Examiner's Answer, the Examiner asserts that Gomez discloses a full multimedia production, such as a seminar, conference, or lecture that can be captured in real-time and is handled automatically in the background, and is thus shielded from the user. (Examiner's Answer, dated September 08, 2006, page 22.) The portions of Gomez that the Examiner has cited in support of her assertion are underlined below and are identified for reference hereinafter, as a first, second, third, and fourth citation.

A full multimedia production such as a seminar, conference, lecture, etc. can be captured in real time using multiple cameras. A live movie of a speaker together with the speaker's flipping still images or slide show can be viewed interactively within the same video display screen. The complete production can be stored on a hard drive for retrieval on demand, or sent live to a host server for live distribution throughout a data network. It is also possible to store the complete presentation on portable storage media and/or to send the complete presentation as an e-mail. (Gomez, Abstract, referred to hereinafter as the "first citation.")

According to the principles of the invention, the tools are handled automatically in the background, shielded from the user, and the encoding is done in real-time. The synchronization points are set when the event is really happening. In one example, overhead-projector plastic slides, computer VGA-graphics, whiteboard drawings, etc. are captured and converted to JPEG, and the video encoding is done in MPEG and stored together with the sound and synchronization points in an ASF file for RTSP (Real Time Streaming Protocol; see RFC 2326 published by IETF (www.IETF.org)) streaming. (Emphasis added, Gomez, column 2, lines 25-35, referred to hereinafter as the "second citation.")

As shown in FIG. 1, an exemplary system according to principles of the invention for automated conversion of a visual presentation into digital data format includes video cameras 11 and 13, a microphone 12, an optional lap top computer 10, and a digital field producer unit 14, also referred to herein as DFP unit or DFP computer. One of the video cameras 13 covers the speaker and provides video information to the live video section 1, and the other video camera 11 covers the slide show, flip chart, white board, etc. and provides the corresponding video information to the still video

section 3. The microphone provides the audio to the sound section 2. In the example DFP unit of FIG. 1, the live video is encoded 4 (e.g., in MPEG) in real time during the speaker's visual presentation, and the still video of the slide show etc. is converted 5 into JPEG files in real time during the presentation. (Gomez, column 3, lines 25-40, referred to hereinafter as the "third citation.")

A synchronizing section 16 of FIG. 1 operates automatically during the speaker's presentation to synchronize the still video information from the slide show, flip chart etc. with the live video information from the speaker. Both the live video and the still video can then be streamed live through a server 15 to multiple individual users via a data network 18 such as, for example, the Internet, a LAN, or a data network including a wireless link. (Gomez, column 3, lines 41-49, referred to hereinafter as the "fourth citation.")

The Examiner's second, third, and fourth citations from Gomez respectively teach that: (1) the tools are handled automatically in the background; (2) there is an automated conversion of a visual presentation into a digital data format; and, (3) the synchronizing section operates automatically during the speaker's presentation. However, Gomez's synchronization, which is disclosed as operating automatically, is not equivalent to appellants' claim recitation of automatically time indexing when live content is captured or when the data stream is produced.

Time indexing is a function that *enables synchronization* as indicated in appellants' subparagraphs (c) of Claim 1, (d)(ii) of Claim 16, (d)(i) of Claim 20, and (b) of Claim 24. Similarly, time indexing is a function that enables the associated presentation slide to be displayed when the recorded presentation is played, at substantially an identical time relative to when the slide was displayed during the live portion, as recited in subparagraph (g) of Claim 9. As disclosed in regard to an exemplary preferred implementation in appellants' specification:

In a preferred implementation of the present invention, each script command will be indexed so as to be synchronized with the nearest prior keyframe during a post-processing operation on the saved ASF stream file. This indexing of the script commands is performed as follows. First, a time index with a one-second granularity or resolution is encoded into the data stream, when the data stream is originally produced. Next, the keyframes are assigned a time index value based on their respective time stamps. Finally, each script command is indexed to the nearest prior keyframe time index value based on the script command's inherent time stamp location in the ASF stream. As a result of applying these steps to the foregoing exemplary events, the script command corresponding to slide 1 will be indexed to a time index value of 8 seconds since the nearest prior keyframe time index value corresponds to an 8 second time index value. Similarly, the script command corresponding to slide 2 will be indexed to a time index value of 24 seconds (its nearest prior keyframe time index value), and the script command

corresponding to slide 3 will be indexed to a time index value of 58 seconds (its nearest prior keyframe time index value). (See appellants' specification, page 42, lines 19-33.)

As should be evident from this description, time indexing is not equivalent to synchronization, but instead, is a technique recited by appellants' claims, which enables synchronization to be achieved.

Furthermore, the Examiner asserts that the prior art teaches that a live, multimedia production can be encoded and assembled into a document file, such as an ASF file. *Id.* The portion of Gomez that the Examiner has cited in support of her assertion is underlined below and is referred to hereinafter as the fifth citation:

The DFP application section 19 further includes an encoder and streamer module 27 which receives the digital video output from video grabber card 20, and continuously encodes and compresses this data into a digitally transferrable stream with low bandwidth. The corresponding audio information from the audio input section is also encoded and compressed into the digitally transferrable stream. The encoding process is also conventionally referred to as streaming or streaming video. Encoding modules such as shown at 27 are conventionally known in the art. One example is the NetShow encoder and streamer conventionally available from Microsoft. In one example, the video encoding can be done in MPEG. *The encoder and streamer module 27 can assemble the encoded video data in a document file, for example an ASF file.* (Emphasis added, Gomez, column 4, line 65-column 5, line 12, referred to hereinafter as the "fifth citation.")

In this case, the Examiner asserts that the assembling of the ASF is interpreted as "time indexing" because it includes frames and corresponding timestamps which allow a user to control passage of time during encoding. *Id.* The Examiner cites column 5, lines 25-28 and lines 50 to 61. The Examiner also cites column 7, lines 14-35 and these portions of Gomez are reproduced below and respectively referenced hereinafter as the sixth, seventh, eighth, and ninth citations.

The ASF file can be output from the encoder and streamer module 27 for live streaming out of the DFP unit 14, and also for storage at 171 in the storage unit 17. The encoder and streamer module 27 also encodes the digitized audio signal received from the audio input section. The encoded video information is also output from the encoder and streamer module 27 to a streamed image display portion 260 of the GUI 30, whereby the streaming video can be displayed on the monitor 34 via the video card 24. The encoder and streamer module 27 receives a control input from an encoder control portion 36 of the GUI 30. The encoder control portion 36 permits a user, via the user command input and serial card 31, to control starting and stopping of the encoding process. In addition, the encoder control 36 provides a recording counter which tracks the passage of time during the encoding of the video event.

(Emphasis added, Gomez, column 5, lines 13-28, referred to herein after as the "sixth citation.")

The HTML file name, hhmmss.htm, is then sent as a relative URL (Uniform Resource Locator) from generator 26 to the encoder and streamer 27 for inclusion, at time stamp hhmmss, in the encoded streaming video data (e.g., in an ASF file) output by the encoder and streamer 27. This synchronizes the still video information from the slide show with the "live" video information from the speaker. In addition, other files can be synchronized to the "live" video, such as sound, VRML, JAVA script, text files, voice-to-text files and files containing translations of voice-to-text files into other languages. (Gomez, column 5, lines 50-61, referred to hereinafter as the "seventh citation.")

The web browser 40 preferably includes an ASF player, executing as a plug-in or an ActiveX control, that processes the ASF file and presents the audio/video to the viewer. When the player, for example a conventional multimedia player such as Microsoft Windows Media Player, encounters a Script Command Object in the ASF file, it interprets and executes Script Command Object. When the player identifies the Script Command Object as a URL, it passes the URL to the browser. The browser executes the URL as if it had been embedded inside an HTML document. According to one embodiment, the URL points to HTML document hhmmss.htm, which in turn contains a pointer to the corresponding JPEG document hhmmss.jpg. (Gomez, column 7, lines 14-26, referred to hereinafter as the "eighth citation.")

If the Windows Media Player control is embedded in an HTML file that uses frames, the URL can be launched in a frame that is also specified by the Script Command Object. This allows the Windows Media Player control to continue rendering the multimedia stream in one frame, while the browser renders still images or Web pages in another frame. If the Script Command Object does not specify a frame, then the URL can be launched in a default frame. (Gomez, column 7, lines 27-34, referred to hereinafter as the "ninth citation.")

In the seventh citation, Gomez discloses a file name - *but not a frame* - that is sent for inclusion at time stamp hhmmss, in the encoded streaming video data output by the encoder and streamer. Furthermore, the time stamp corresponds to the system time on which the HTML file name was based (Gomez, column 6, lines 24-25). However, Gomez does not appear to teach or suggest that time stamps correspond to, or are equivalent to, frames.

In the sixth citation, Gomez discloses that a recording counter tracks the passage of time and is provided by the encoder control. However, Gomez does not expressly teach or suggest that time stamps are employed by the recording counter to keep track of time. This citation also discloses that

a user can start and stop the encoding process. Appellants respectfully disagree that Gomez teaches that Gomez includes frames and corresponding time stamps that enable a user to control passage of time during the encoding. A user may start and stop the encoding process in Gomez, but the manner in which this happens is not disclosed in Gomez, and there is no reason to assume that time stamps are employed for this purpose.

In the ninth citation, frames are disclosed, but the context of a "frame" appears to be used differently in Gomez than in appellants' claims. Gomez's frame appears to be a feature that divides a browser's display into separate windows that can be scrolled independently of each other such that a multimedia stream can be rendered in one frame (or window) while Web pages are rendered in another frame (or window). In contrast, appellants' claims refer to a keyframe and a deltaframe, which are not display windows appearing in a browser application, but instead relate to the compression algorithm used for recording a presentation.

With respect to the Dyson reference, the Examiner has also asserted that Dyson discloses time indexing in "Using the ASF Editor" that enables a user to place audio and video files into the timeline and refers to "Using NetShow Live Administrator" as enabling users to record live audio. *Id.* However, enabling a user to manually place audio and video files into a timeline (i.e., "you can place event on a timeline") teaches a manual process and not an automated process. Furthermore, Dyson simply states that the ASF Editor is used to combine and synchronize images, audio and script commands. (See "Using the ASF Editor," first paragraph, page 5 of 9.) As described above, appellants' claim recitation of "time indexing" is different than the term "synchronization."

With respect to the Examiner's reliance on the Klemets reference, appellants' continue to rely on the traverse presented by their arguments on pages 7-9 in their Appeal Brief.

Therefore, for the reasons noted above, the combined references of Dyson, Klemets, and Gomez fail to teach or suggest automatic time indexing when live content is captured or a data stream is produced.

The Combination of Dyson, Klemets and Gomez Fails to Teach or Suggest Keyframes and Deltaframes.

Appellants respectfully disagree with the Examiner's Response to Argument statements on page 22 of the Examiner's Answer, asserting that Gomez discloses keyframes and deltaframes, in column 8, line 49-column 9, line 6. The portion of Gomez cited by the Examiner is reproduced below:

The still image grab/convert portion 610 provides the pixel data received from the video grabber card 23 to a data storage section at 650 and 660. Each time a still image is grabbed, the pixel data is provided to a current picture storage section 650 whose previous contents are then loaded into a last picture storage section 660. In this manner, the pixel data associated with the current still image and the most recently grabbed previous still image (i.e., the last still image) are respectively stored in the data storage sections 650 and 660. A difference determiner receives the current and last picture data from the storage sections 650 and 660, and determines a difference measure, if any, between the current still image and the last still image. If the difference determiner determines that a difference exists between the two still images, then information indicative of this difference is provided to a threshold portion 640, which compares the difference to a threshold value to determine whether the images differ enough to warrant creation of a new JPEG file corresponding to the current image. If the difference information received from difference determiner 630 exceeds the threshold of threshold portion 640, then the output 690 of threshold portion 640 is activated, whereby the create file signal 680 is activated by operation of an OR gate 685 that receives the threshold output 690 as an input. The OR gate 685 also receives as an input the manual/automatic signal from FIG. 5, whereby the file creator 620 can be directed to create a JPEG file either by activation of the threshold portion output 690 or by a "manual" indication from the manual/automatic signal. (Gomez, column 8, line 49-column 9, line 6.)

The Examiner further asserts that Gomez discloses a difference determiner receiving the current and last picture data and determines a difference measure between the current still image and the last still image, and if there is enough difference between the current and last picture data, a new JPEG file is produced. (Examiner's Answer, dated September 08, 2006, page 22.) The Examiner indicates that appellant defines keyframes as video frames that comprise new data, while deltaframes comprise data corresponding to the difference between the current frame and its immediate preceding frame. (Examiner's Answer, dated September 08, 2006, pages 22-23.) Thus, the Examiner concludes that Gomez's new JPEG file is therefore interpreted as a "keyframe," while the data corresponding to the difference between the current and last images are interpreted as corresponding to "deltaframes." (Examiner's Answer, dated September 08, 2006, page 23.)

Appellants respectfully disagree with this assertion. Appellants' step (b) of Claim 1 recites (with emphasis added), "automatically embedding the slide display commands into a data stream as the data stream is produced, the data stream comprising data corresponding to the live portion of the presentation, wherein the live content is captured as a plurality of video frames comprising a plurality of keyframes and deltaframes." Subparagraph (a)(i) of Claim 9 includes a similar recitation. Therefore, it is evident from the claim language that the plurality of keyframes and

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deltaframes are included in the video frames captured as live content. One of ordinary skill in the art would also know that these two types of frames relate to the compression algorithm that is used for recording a presentation as video data.

As is apparent from the Examiner's first citation (supra) to the Abstract of Gomez, Gomez discloses that a live movie together with the speaker's flipping still images or slide show can be viewed. The live movie is produced in response to the video signal from live video camera 13 by encoder and streamer 27 (see FIGURE 2 of Gomez). In the second citation (supra), Gomez states that the live video is encoded in real time during the speaker's visual presentation, and the still video of the slide show is converted into JPEG files in real time. Furthermore, Gomez discloses that during replay broadcasts, the web server retrieves and forwards the stored ASF file (containing the encoded/compressed "live" video data), accesses the stored HTML documents, and retrieves and forwards the stored JPEG documents (Gomez, column 7, lines 50-54). However, the stored JPEG files are produced by still image grab/converter 21. Gomez indicates that either the user can manually initiate the production of each new JPEG file of a still slide or that the process can be automated in response to the difference between successive still image frames of the slides (where the difference indicates that the slides have changed during the live presentation). Gomez only produces JPEG files of the slides and there is no teaching that these JPEG files include keyframes or deltaframes, which they would not, since they are simply static JPEG files. Thus, the JPEG files utilized by Gomez are not equivalent to keyframes and deltaframes that are included in the video frames that are captured as live content, as recited in appellants' claims.

With respect to Dyson, the Examiner asserts that support of time indexing of video frames can be found in the teachings of Dyson (Using the ASF Editor: allows the user to place audio and video files into the timeline). (Examiner's Answer, dated September 08, 2006, page 23.) However, Dyson does not teach or suggest any video frames that include keyframes and deltaframes.

Therefore, it is clear for the reasons given above that the combined references of Dyson and Gomez fail to teach or suggest keyframes and deltaframes as recited by appellants' claims.

The Combination of Dyson and Gomez Fail to Teach or Suggest Generation of Slide Display Commands in Response to Slide Triggering Events.

The Combination of Dyson and Gomez fail to teach or suggest generation of slide display commands in response to slide triggering events. With respect to Dyson, appellants respectfully disagree with the Examiner's Response to Argument statement on page 23 of the Examiner's

Answer, wherein the Examiner asserts that Dyson discloses (in Creating Netshow Content) allowing the user to embed scripting commands into an .asf file so that one can use it to open web pages and send script commands to clients, open URLs, and manage input and feedback from users.

The Examiner also asserts that Gomez teaches a user's command input, allowing the user to flip through still images or slideshows. (Examiner's Answer, dated September 08, 2006, page 23.) The Examiner cites the abstract and column 3, lines 33 through 47, and column 4, lines 60-64 of Gomez. It apparently is the Examiner's position that a user's command input to flip images corresponds to a "slide triggering event," and in response to the user's command input, the Examiner indicates that Gomez discloses inserting a script command object into an ASF file to control the display of images. The Examiner cites column 6, lines 1-4; column 7, lines 18 to 30; and column 8, lines 1-5 in support of her assertion. The Examiner indicates that the script command is interpreted as a "slide display command."

It appears that the Examiner has misconstrued the teachings of Gomez. As noted above, Gomez teaches that a user can manually cause still image grabber and converter 21 to grab a still image of a slide or a flip chart. The control of the still image grabber and converter with a user input is not equivalent to a presenter issuing a slide change command to change the slide being shown during a live presentation (which is the slide triggering event referenced in the appellants' claims). The script command object disclosed in Gomez is used to insert a URL into the ASF file, as clearly stated in Gomez at column 5, line 65 through column 6, line 4. Gomez does not teach or suggest that a script command object is inserted into the ASF file in response to a slide display command input by a user to change slides during a live performance.

With respect to Dyson, any command referred to therein is not related to the display of slides and is not produced in response to a slide triggering event. Dyson's commands appear to open Web pages and URLs or manage input and feedback, etc. Dyson's commands do not appear to be related in any way to the display of slides. Furthermore, Dyson does not teach or suggest that the commands correspond to any specific event, such as a slide triggering event. Dyson appears to disclose embedding scripting commands at a user's discretion.

Therefore, for the reasons noted above, the combined references of Dyson and Gomez fail to teach or suggest generation of slide display commands in response to slide triggering events.

The Combination of Dyson and Gomez Fails to Teach or Suggest Controlling the Display of Slides during Playback.

Appellants respectfully disagree with the Examiner's Response to Argument statements, wherein she asserts on page 24 of the Examiner's Answer that Dyson and Gomez teach controlling the display of slides during playback. The Examiner asserts that Dyson (in Overview) teaches that users can fast forward quickly and easily to a specific point of interest and cites the last two lines of this portion of the reference. (Examiner's Answer, dated September 08, 2006, page 24.) In addition, the Examiner asserts that Gomez discloses PowerPoint slides being converted into JPEG (Gomez, column 1, lines 51-54). *Id.* Thus, during replay, the Examiner asserts, a user can navigate to any point of the presentation (Gomez, column 2, lines 13-24; column 6, lines 61 to column 7, line 8). *Id.*

However, Dyson discloses:

You will also occasionally see the abbreviation ASF used for Active Movie Streaming Format or Active Streaming Format rather than ActiveX Streaming Format; the initials and the format are the same, and that is what really matters. Active Streaming Format (ASF) allows you to deliver multimedia content on your corporate intranet or to the Internet. With ASF files, you can provide audio, illustrated audio, or video at various rates. You can also open Web pages, add scripting commands, and even add markers so that your users can fast forward quickly and easily to a specific point of interest. (Dyson, Chapter 8: Adding Audio and Video with Netshow.)

Dyson does not teach or suggest controlling the *display of slides* in the above citation. Also, the "navigation" or fast forwarding referred to in Dyson is not the same as appellants' "controlling display," since there is no suggestion in Dyson that the display of slides be controlled. Fast forwarding to a specific point in a streaming format, as disclosed in Dyson, is not the same action as controlling the display of slides to replicate their display as it occurred in the live presentation, during playback.

Furthermore, Gomez does not teach or suggest that an "actual" slide presented during the live presentation is even available during the playback. A PowerPoint slide that is *converted* into a JPEG file is not an actual "slide" that is shown during the live presentation and also during the playback. Therefore, Gomez does not teach or suggest appellants' claim recitation of "controlling display of slides during playback."

CONCLUSION

The art cited by the Examiner in rejecting Claims 1-4 and 6-29 as unpatentable does not in combination teach or suggest the recitation of these claims. From the preceding discussion, it will be apparent that the combination of Dyson, Klemets and Gomez does not teach or suggest appellants' claim recitation of automatic time indexing when live content is captured, or that a data stream is produced, and does not teach or suggest appellants' claim recitation of a plurality of keyframes and deltaframes comprising a data stream. In addition, the combination of Dyson and Gomez does not teach or suggest the generation of slide display commands that are in response to slide triggering events and are included in the data stream, or teach or suggest controlling display of slides during playback of a presentation.

Accordingly, the Examiner's position in rejecting the claims on appeal is without merit and appellants again ask that the Board overrule the Examiner's rejection of these claims and instruct the Examiner to pass the present application to issue without delay.

Respectfully submitted,

/sabrina k. macintyre/ Sabrina K. MacIntyre Registration No. 56, 912

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